Lesson: Stars in the Sky

Reference to English Interconnections Lesson
Stars in the Sky Pg. 91

Science Standard(s): Observe and record recognizable objects and patterns in the night sky.
Objective(s): Observe and record recognizable objects and patterns in the night sky.
Indicator(s): Observe and describe the number, arrangement and color/brightness of stars in the night sky.

Content Objective(s):	**Language Objective(s):**
kid friendly objective. Will be posted on the board.	Kid friendly. Posted on the board. May include listening, speaking, reading, writing. See list of possible verbs.
Essential Questions: How does the natural world change?	**Academic Vocabulary:** 星星, 太阳, 星座
Materials: - colored paper - glue - butcher paper	**Language References and Word Wall:** Required: 星星, 太阳, 星座 Additional: 比较大, 比较小, 颜色, 排列

Lesson: Stars in the Sky	**Instructional time: 32 minutes**

Opening: (4 minutes)

- Sing: Twinkle Twinkle Little Star!

一闪一闪亮晶晶,
满天都是小星星。
挂在天空放光明,
好像许多小眼睛。
一闪一闪 亮晶晶,
满天都是小星星。

- Have stars and a big sun set up around the room.
- Show the students a star ask them what it is.
- Hold up a sun and ask them what it is.
- Tell the students to look around the room and get up and find a star.

Introduction to New Material (Direct Instruction): (8 minutes)

- Bring students back to the carpet and explain to them that the SUN is a STAR!
- Do a KWL chart.

Question: What do you know about stars?
关于星星，你已经知道什么？
What do you want to know?
你想要学什么？

K	W
Stars look like balls of light	What shape are the stars?
Some stars look brighter	Are all stars the same size?
Some stars look white	What colors are stars?
I can see a lot of stars	How many stars are there?
Stars look like a dot-to-dot puzzle	What are these patterns of dot called?

- Teach students: Stars are round.
Stars are big and small
Stars are yellow, blue, white, red
Stars make a pattern called **constellations**

- Language suggestions:
The star is round.
This star is bigger than that star.

Guided Practice: (5 minutes)

Use the following website to show students different constellation (or use another one with pictures of constellations)
www.dibonsmith.com/graphics.htm (This site by Richard Dibon-Smith)

- Show constellations without giving its name.
- Talk about shape of stars, number arrangement, patterns…

- Language suggestions:

Independent Practice: (10 minutes)

- Let's make constellations. Form 4 person groups and have them decide among themselves a constellation they want to

build in the room. Each group will build one constellation with stars of their choice. The teacher will put these constellations up in the room.

- How to make constellations
  1. Students choose their color of paper.
  2. Students crumple the paper into balls to make stars.
  3. Students arrange their stars to create a constellation.
  4. Students glue constellation on butcher paper.

Use the modeling cycle:

Teacher Does:

Teacher will go through the steps of making a constellation while demonstrating appropriate behavior.

Teacher Does with Students:

Teacher will invite three students to come up and be a group making a constellation.

The students will demonstrate the steps of making a constellation.

- Language suggestions:

How many stars do you want in the constellation?

你的星座要有几个星星？

What do we want the constellation to be?

你们要创造什么种的星座？

What color(s) should it be?

要什么颜色的星座？

Where is the glue?

浆糊在哪里？

I will do that part.

这个我来做。

What do you want to do?

你要做什么？

The teacher and students will work together to decide on what they want the constellation to look like.

All Students Practice:

Students work together to create a constellation.

Closing: (5 minutes)

QUESTIONS:

- Show pictures of the SUN and STARS and ask the students what they are.
- Where are the constellations in the classroom?

星座在哪里？

- What constellations did you build?

你创造了什么星座？

Ask students to come up and describe their constellation.

Assessment:

Group description of constellation.

Resources:

http://science.nationalgeographic.com/science/space/universe/stars-article/

Red Stars: Burn slow and cool, live trillions of years, and end as heavy little cinders. Give each student a 1 inch square of red construction paper and have them cut it into a circle.

Yellow Stars: Like our sun, live billions of years, and end as dense white dwarf stars. Give each student a 2 inch square of yellow construction paper and have them cut it into a circle.

Blue Giant Stars: Live millions of years, explode and end as rapidly spinning pulsars. Give each student a 3 inch square of blue construction paper and have them cut it into a circle.

Super Giant Stars: Explode and end as a super dense cinder whose gravity is so great that nothing can escape, not even light. This is known as a Black Hole. Give each student a 4 inch square of white construction paper and have them cut it into a circle.

Independent Interactive Practice: (minutes)

Let's make constellations. Form 4 person groups and have them decide among themselves a constellation they want to build in the room. Each group will build one constellation with stars of their choice. The teacher will put these constellations up in the room.